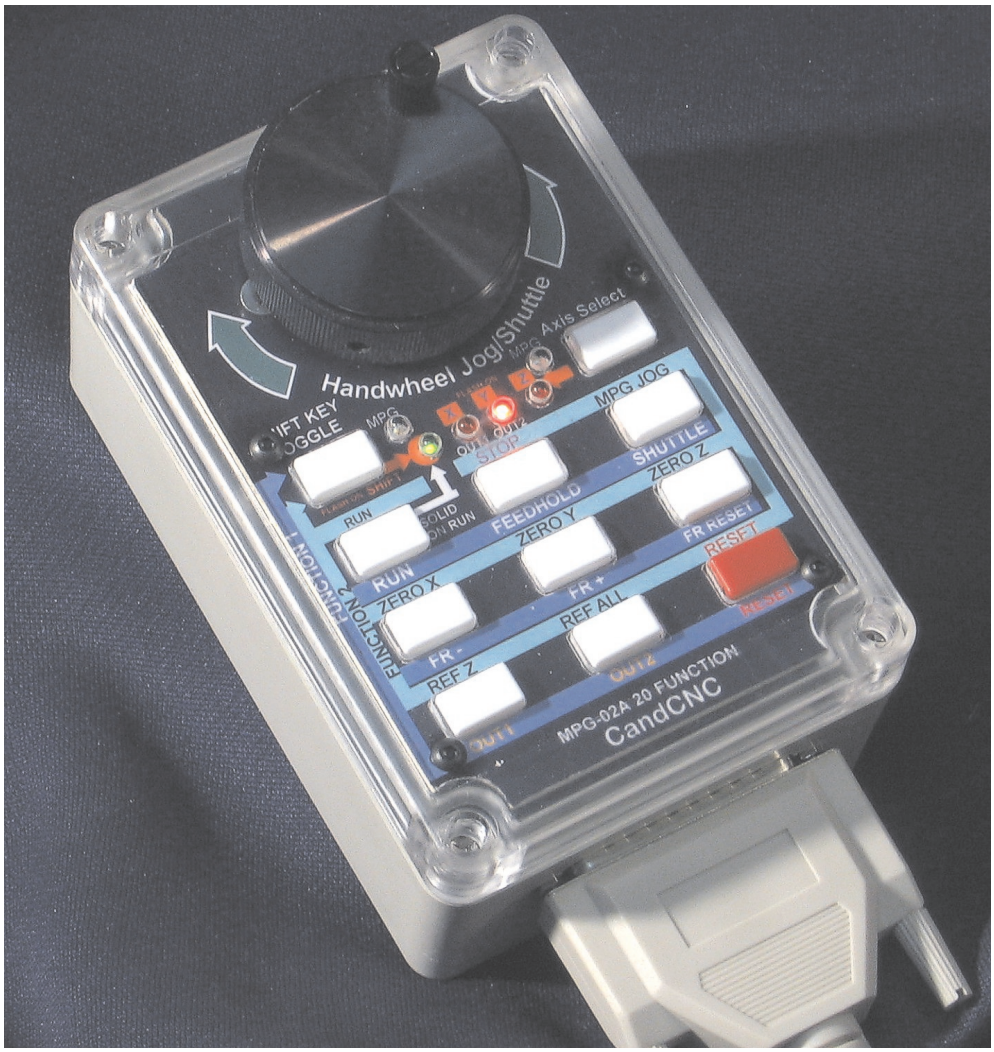
USER MANUAL MPG-02A Multi-Function Pendant & Handwheel

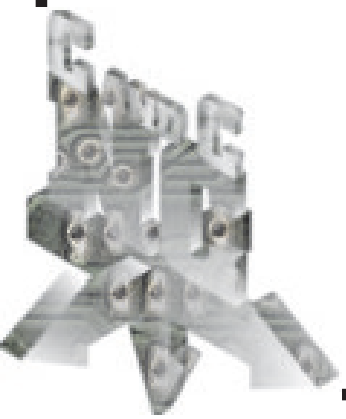
REV1



20 Function Pendant for use with CandCNC Port2 card
and MACH3 Controller Software.

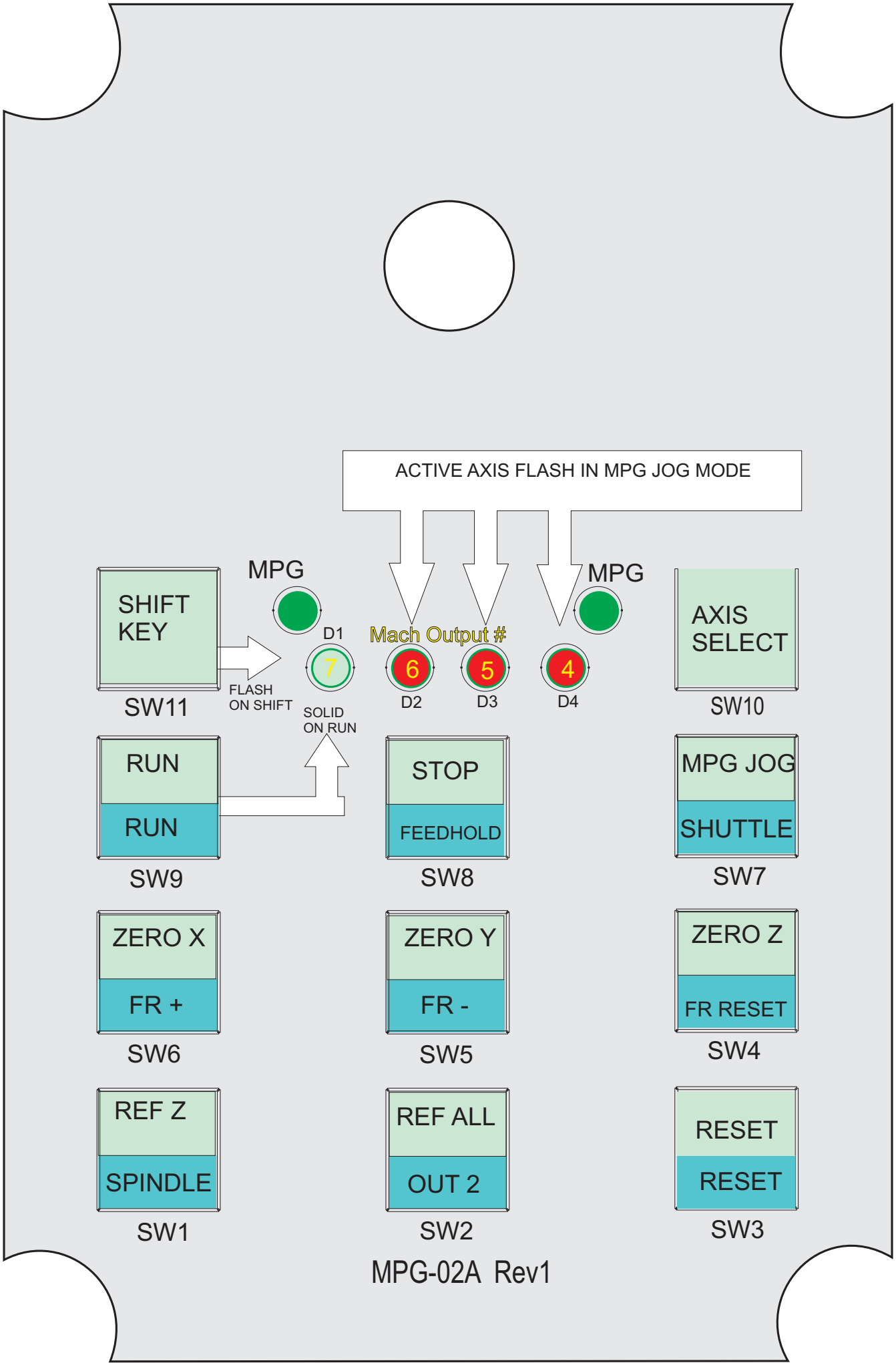
CandCNC

www. CandCNC.com



Powered By MACH 3

MPG-02A Button Functions



MPG LED
FLASHES WHEN
CHANNEL A IS ACTIVE

MPG LED
FLASHES WHEN
CHANNEL B IS ACTIVE

1. Off when in Lower Shift Mode and RUN is not active
2. On Solid when in Lower Shift Mode and RUN is ACTIVE
3. Flashes when in Upper Shift Mode

FLASH ON

X Y Z

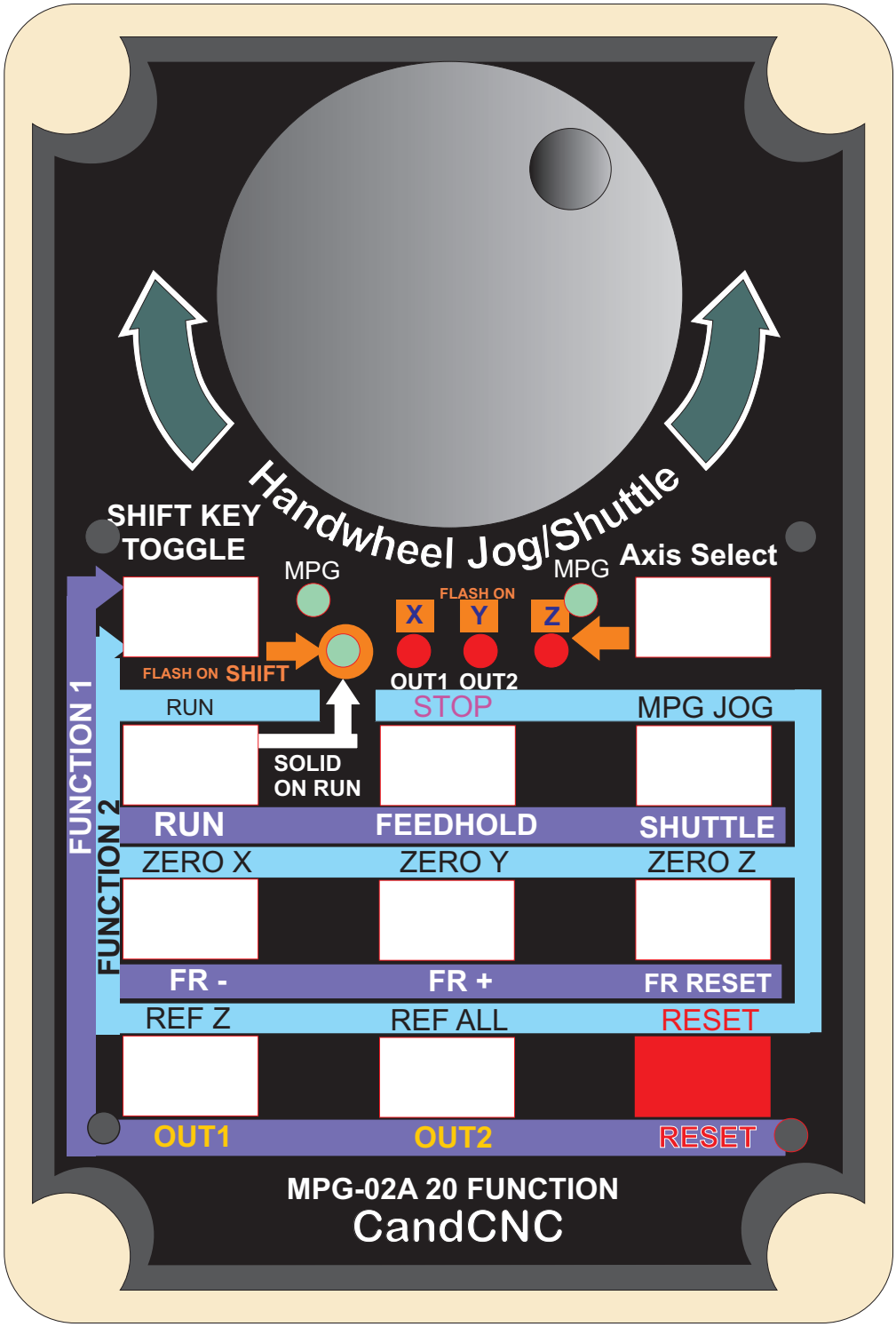
OUT1 OUT2 FR Active

XYZ LED's Flash when in Upper Shift Mode and MPG Jog is active (Selected Axis flashes with Shift Mode LED

On Steady When in Lower Shift Mode and Output1 is active

On Steady When in Lower Shift Mode and Output2 is active

Flashes when in Lower Shift Mode and Feedrate Override is Active



MPG-02 A Switch Assignments

Pendant Switch	MACH OEM #	Mapped Function	MACH CODE	Shifted Function	MACH CODE
NA		MPG		MPG	
NA		MPG		MPG	
SW3	39	RESET	1021	RESET	1021
SW9	38	RUN	1000	RUN	1000
SW4	30	FR Reset	1014	Zero Z	1010
SW10	37	Axis Toggle	175	Axis Toggle	175
SW11	29	SHIFT		SHIFT	
SW2	33	Flood (Out 2)	113	REF ALL	246
SW5	31	FR -	108	Zero Y	1009
SW1	32	Spindle/OUT 1	110	REF Z	1022
SW6	34	FR +	109	Zero X	1008
SW8	35	FEEDHOLD	1001	STOP	1003
SW7	36	Shuttle Mode	284	MPG JOG	174
Indicators					
D4	61	Out 1 Active (Solid)		MPG Z axis (Flash)	
D3	60	Out 2 Active (Solid)		MPG Y axis (Flash)	
D2	59	FR OverRide (Flash)		MPG X Axis (Flash)	
D1	81	Run LED (Solid)		SHIFTED (flash)	

Note: Use of this product requires MACH3 and a custom program from CandCNC running in MACH3. Other functions can be mapped to the pins. Contact us at Tom@CandCNC.com if you would like to have other functions and which keys you want to use.

How to define functions in the code.

1. **Find the OEM Button (function) you want to do in the MACH3 list**
2. **Look at the ref number (MACH OEM #) for the key on the pendant (i.e. 30 thru 39)**
3. **Decide if you want the function to be in the Normal (unshifted) or the Shifted section**
4. **Open the Macropump.m1s file with a text editor (Notepad) and change the number for the corresponding button that is in the () to the desired OEM Button Code.**
5. **Save the new code with a different name from macropump.m1s**
6. **Rename the old macropump.m1s to macropump.old**
7. **Make sure your new file is in the Mini-IO-SC-Dual folder under macro's**
8. **Rename it to macropump.m1s**
9. **Restart MACH3.**

NOTE: This is sample code and is not the correct syntax. DO not use this to run!

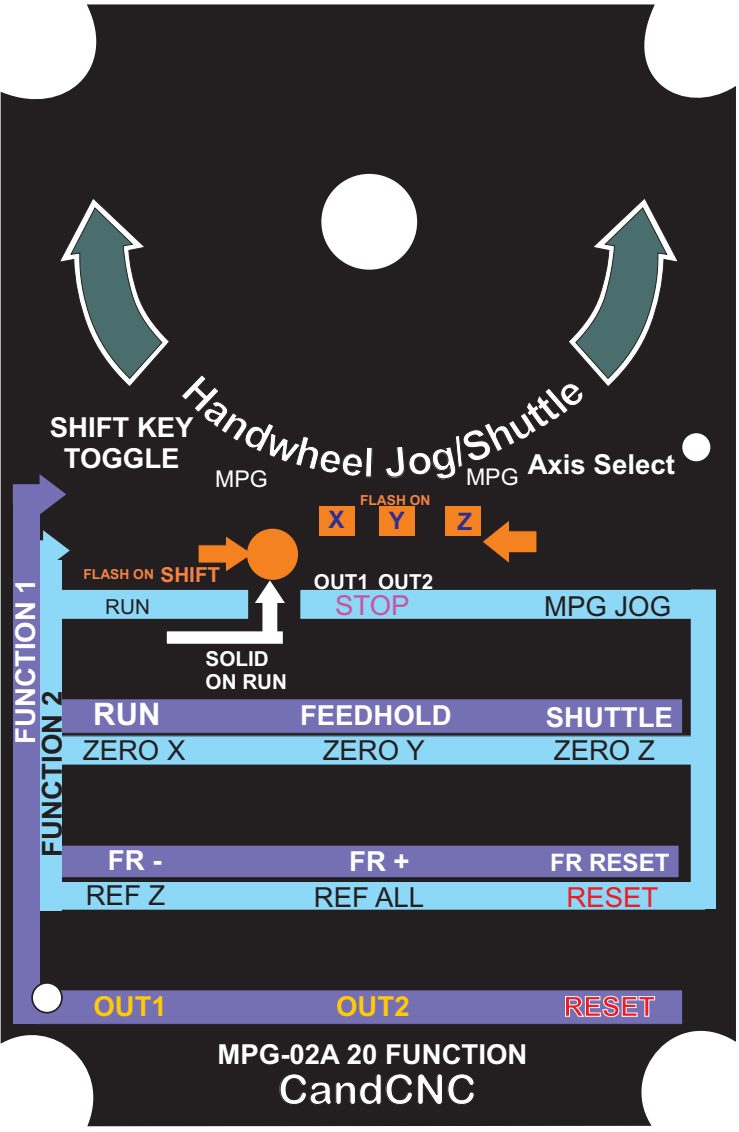
If you make a typo or get the code wrong you will get an error message when you start MACH3

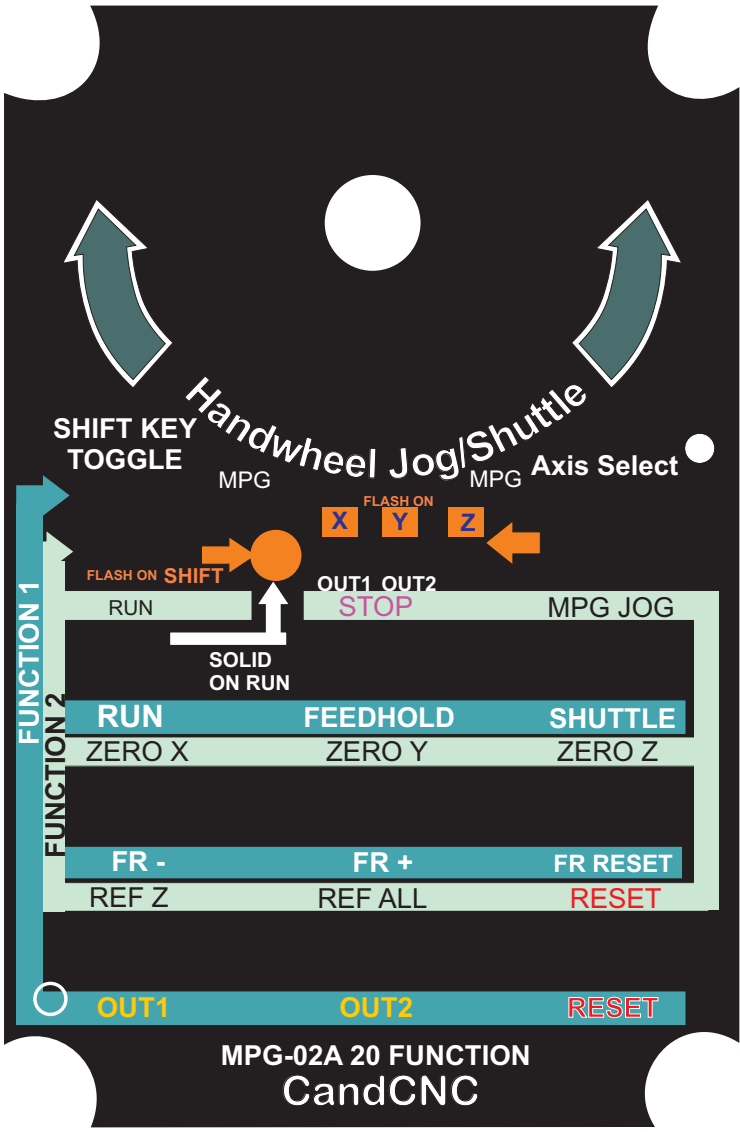
```
IF keyno > 29 AND Shift = 0  Then 'unshifted
        Select Case Keyno
                Case = 30
                        DoOEMButton(1014)
                         Innerloop = 1
                        looptrigger = 0
                Case = 31
                        DoOEMButton(108)
                         Innerloop = 1
                        looptrigger = 0
                Case = 32
                        DoOEMButton(110)
                         Innerloop = 1
                        looptrigger = 0
                Case = 33
                        DoOEMButton(113)
                         Innerloop = 1
                        looptrigger = 0
                Case = 34
                        DoOEMButton(109)
                         Innerloop = 1
                        looptrigger = 0
                Case = 35
                        DoOEMButton(1001)
                         Innerloop = 1
                        looptrigger = 0
                Case = 36
                        DoOEMButton(284)
                         Innerloop = 1
                        looptrigger = 0
                Case = 37
                        DoOEMButton(175)
                         Innerloop = 1
                        looptrigger = 0
                Case = 38
                        DoOEMButton(1000)
                         Innerloopt = 1
                        looptrigger = 0
                Case = 39
                        DoOEMButton(1021)
                         Innerloop = 1
                        looptrigger = 0
```

Sample Code for SHIFTED Functions

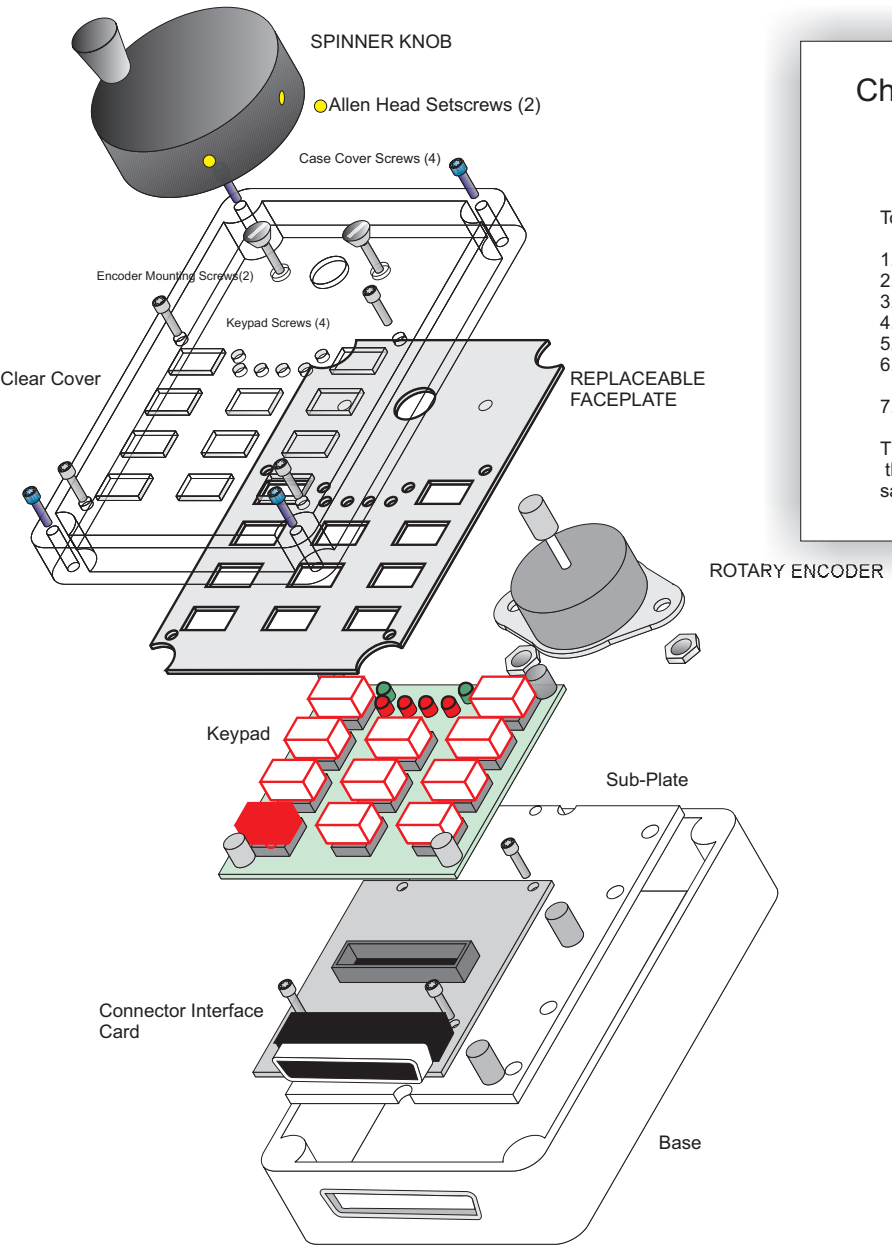
NOTE: This is sample code and is not the correct syntax. DO not use this to run!

```
If Keyno > 29 AND Shift = 1 then
Select Case Keyno
        Case = 30
                DoOEMButton(1010)
                 Innerloop = 1
                looptrigger = 0
        Case = 31
                DoOEMButton(1009)
                 Innerloop = 1
                looptrigger = 0
        Case = 32
                DoOEMButton(1022)
                 Innerloop = 1
                looptrigger = 0
        Case = 33
                DoOEMButton(246)
                 Innerloop = 1
                looptrigger = 0
        Case = 34
                DoOEMButton(1008)
                 Innerloop = 1
                looptrigger = 0
        Case = 35
                DoOEMButton(1003)
                 Innerloop = 1
                looptrigger = 0
        Case = 36
                DoOEMButton(174)
                 Innerloop = 1
                looptrigger = 0
        Case = 37
                DoOEMButton(175)
                 Innerloop= 1
                looptrigger = 0
        Case = 38
                DoOEMButton(1000)
                 Innerloop = 1
                looptrigger = 0
        Case = 39
                DoOEMButton(1021)
                 Innerloop = 1
                looptrigger = 0
    Case Else
End Select
```





Faceplates for new MPG-02A 20 function pendant



Changing the MPG-02 Replaceable Faceplate

To Change out the Faceplate:

1. Loosen Set Screws on Spinner Knob
2. Remove Spinner Knob by carefully prying from both sides at once.
3. Loosen 4 screws holding Clear Cover and remove Clear Cover from Base.
4. Remove 2 Flat head screws holding Rotary Encoder onto Clear Cover.
5. Remove the 4 Screws holding the Keypad to the front.
6. Separate the Front Panel and replace with new one. Make sure the LED's all line up properly and are in the holes.
7. Reassemble in reverse order.

There is no need to remove the lower Connector Interface card or disconnect the Encoder wires. If you do make sure the encoder is plugged back in the same way since the connector is not "keyed".

MPG-02A Dimensions